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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,834	06/15/2001	David A. Dalman	358362001101	7037

7590 11/04/2004

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EXAMINER

COLE, ELIZABETH M

ART UNIT PAPER NUMBER

1771

DATE MAILED: 11/04/2004

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/880,834  
Filing Date: June 15, 2001  
Appellant(s): DALMAN ET AL.

**MAILED**  
NOV 04 2004  
**GROUP 1700**

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Jonathan Bockman  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed August 12, 2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) Status of Claims**

The statement of the status of the claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Invention**

The summary of invention contained in the brief is correct.

**(7) Grouping of Claims**

Appellant's brief includes a statement that claims 1-15 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

5,233,821	Weber, Jr. et al	08-1993
5,119,512	Dunbar et al	06-1992

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:  
Claims 1-10, 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Weber et al, U.S. Patent No. 5,233,821. Weber et al discloses fabrics containing

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polybenzazole fibers. The fibers may be formed into yarns which comprise continuous filaments. The filaments may be held together by twisting, entangling, or by the application of a finish. See col. 5, lines 16-18. Therefore Weber teaches untwisted fibers. The optimum denier of the yarn may be at least 50 denier, more preferably at least about 200 denier. See col. 5, lines 22-30. Therefore, claim 1, 13 and 15 are anticipated. The polybenzazole fibers disclosed by Weber et al contained the claimed mer units, (col. 2, lines 18 et seq). Therefore, claims 2-7 are anticipated by Weber et al. The fibers are usually collected into yarns prior to making a fabric, (col. 5, lines 9-10). Claim 8 is therefore anticipated by Weber et al. The benzazole polymer fibers may be combined with a cotton, polyester, nylon or rayon fibers, (col. 6, lines 18-20). Therefore, claims 9 and 10 are anticipated. Weber et al teaches a vest made from the polybenzazole fabric, (claims 13 and 15). Therefore, these claims are anticipated.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber, Jr. et al in view of Dunbar et al, U.S. Patent No. 5,119,512. Weber discloses fabric containing PBO fibers as set forth above. Weber differs from the claimed invention because Weber does not disclose incorporating the fibers into a matrix resin. Dunbar teaches that cut-resistant fibers which are formed into fabric suitable for use as protective garments may be impregnated with a matrix resin. See col. 4, lines 20-31 and col. 6, lines 54-65. Dunbar teaches that coating the fabric helps to protect the fibers and provide an additional physical barrier to the fabric during use. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have impregnated the fabric of Weber as taught by Dunbar. One

of ordinary skill in the art would have been motivated to impregnate the Weber fabric in order to protect the fabric as taught by Dunbar.

**(11) *Response to Argument***

Appellant argues that Weber discloses only cut resistant articles and that cut resistant articles are typically made of discontinuous fibers that are made into articles having a bulky structure. However, Weber clearly discloses continuous fibers, not discontinuous fibers as asserted by Appellant. See col. 5, lines 16-22.

Appellant argues that there is a difference in fiber denier and fiber twisting between the article of Appellants and the article disclosed in Weber. Appellant asserts that the articles claimed "are untwisted and are no more than 500 denier". While this is true, the Weber article also employs untwisted fibers which have a denier of preferably at least 50 and more preferably at least 200. Therefore, the Weber article employs the same fibers. For example, col. 5, lines 23-30 of Weber, clearly teaches that preferred fibers have a denier of at least 50 and more preferably at least 200. Therefore, the Weber fibers clearly meet the claimed limitation of a denier of no more than 500 denier. Further, col. 5, lines 16-21, states that "Continuous filament yarns contains a number of continuous filaments that are held together by known means such as twisting, entanglement or application of a finish." Therefore, Weber clearly discloses that the fibers can be held together in three ways: by twisting, by entanglement and by application of a finish. Therefore, Weber clearly teaches untwisted fibers.

Appellant argues that the differences between the claimed article and the Weber article are shown in the Declaration of Yakihiro Nomura which compared a fabric with a

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fiber denier of 1000 to a fabric with a fiber denier of 500, and also compared a fabric comprising 500 denier twisted fibers to the same fabric which employed untwisted fibers. However, the instant rejection is set forth under section 102(e), and therefore cannot be overcome by a showing of unexpected results. Further, the Declaration would not be persuasive in any event since it does not compare the fabrics of Weber, which, as set forth above, include fibers with a denier of at least 50 and more preferably at least 200, and which are not twisted. Therefore, the comparison is not commensurate with what is actually shown in the Weber reference.

Appellant again argues that Weber, in contrast to the claimed invention, teaches fibers having a denier of above 500. However, Weber clearly and explicitly teaches preferred fibers have a denier of at least 50 and more preferably at least about 200. Therefore, the contention that Weber does not teach fibers having a denier of less than 500 is incorrect.

Appellant argues that Weber does not disclose a benefit to employing untwisted yarns. However Weber clearly teaches untwisted yarns, by stating that in addition to holding the continuous filaments together by twisting, the filaments could also be held together by the application of a finish. The rejection of record sets forth that Weber anticipates the claims. It is not necessary that Weber teach specific advantages for employing untwisted yarns, since Weber clearly teaches untwisted yarns.


Appellant argues that the material of Weber would not have "ballistic resistance suitable for use as soft armor". However, Weber discloses a fabric formed from the identical fibers as the claimed fabric. Weber discloses that the fabric may be used to

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
form vests. The limitation "for use as soft armor" is a statement of intended use. The vest of Weber is capable of meeting the intended use. Further, the limitation having "ballistic resistance" is not specific as to any particular degree of ballistic resistance. Therefore, the Weber material, which would necessarily have at least some ballistic resistance and which may be used to make garments such as vests which equate to "soft armor", meets this limitation because a vest made according to the disclosure of Weber would offer at least some amount of resistance to a projectile.

With regard to the combination of Weber and Dunbar, Appellant argues again that Weber does not teach untwisted yarns and a denier of not more than 500. However, as set forth above, Weber clearly teaches untwisted yarns and that the denier is preferably at least 50 and more preferably at least 200. For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

  
Elizabeth M. Cole  
Primary Examiner  
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E.C.  
October 26, 2004

Conferees  
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